Cell Line Designation: A549

AddexBio Catalog No. C0016002

Cell Line Description:

Disease: Lung carcinoma

Species: Homo sapiens

Tissue: Lung

Properties: Adherent; epithelial

Complete Medium: F-12K Nutrient Mixture (Kaighn's Modification) + 10% FBS

Subculture Procedure: 1:3 to 1:8 using 0.25% trypsin or trypsin/EDTA, 5% CO2; 37°C

Medium Renewal: Two to three times weekly.

Freezing Medium: Complete culture medium supplemented with 5% (v/v) DMSO

Additional Information: Additional product and technical information can be obtained from the catalog references and the Addexbio Technical Information site at www.addexbio.com, or by email at customersupport@addexbio.com.

Biosafety Level: 1

Appropriate safety procedures should always be used with this material. laboratory safety is discussed in the following publication: Biosafety in Microbiological and Biomedical Laboratories, 5th ed. HHS Publication No. (CDC) 93-8395. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Washington DC: U.S. Government Printing Office; 2007. The entire text is also available online at www.cdc.gov/od/ohs/biosafty/bmbl4/bmbl4toc.htm

Use Restrictions: **These cells are distributed for research purposes only.** Addexbio does not recommend third party distribution of this cell line, as this practice has resulted in the unintentional spreading of contaminated cell lines.

rev. 06/2013
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Handling Procedure for Frozen Cells:

To insure the highest level of viability, thaw the vial and initiate the culture as soon as possible upon receipt. If upon arrival, continued storage of the frozen culture is necessary, it should be stored in liquid nitrogen vapor phase and not at -70°C. Storage at -70°C will result in loss of viability.

Handling Cells Upon Arrival:

Frozen cells must be thawed immediately upon receipt and grown according to the handling procedures described here in this instruction manual to ensure the best cell viability.

Note: ***Avoid refreezing or repetitive freezing cells upon receipt*** *as it may result in irreversible damage to the cell line.*

Disclaimer: We cannot guarantee cell viability if the cells are not thawed immediately upon receipt and grown according to handling procedures described in this instruction manual.

Safety Precaution:

Addexbio highly recommends that protective gloves and clothing always be used and a full face mask always be worn when handling frozen vials. It is important to note that some vials leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vessel exploding or blowing off its cap with dangerous force creating flying debris.

1. Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the O-ring and cap out of water. Thawing should be rapid (approximately 2 minutes).

2. Remove the vial from the water bath as soon as the contents are thawed, and decontaminate by dipping in or spraying with 70% ethanol. All of the operations from this point on should be carried out under strict aseptic conditions.

3. Resuspend cell pellet with the recommended complete medium and dispense into a new culture flask. It is important to avoid excessive alkalinity of the medium during recovery of the cells. It is suggested that, prior to the addition of the vial contents, the culture vessel containing the complete growth medium be placed into the incubator for at least 15 minutes to allow the medium to reach its normal pH (7.0-7.6).

4. Incubate the culture at 37°C in a suitable incubator. A 5% CO_2 in air atmosphere is recommended.

References for A549 cells:

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1. Armstrong, D. A., Phelps, L. N., and Vincenti, M. P. CCAAT enhancer binding protein-beta regulates matrix metalloproteinase-1 expression in interleukin-1beta-stimulated A549 lung carcinoma cells. Mol Cancer Res, 7: 1517-1524, 2009.

2. Tomankova, K., Kolarova, H., Bajgar, R., Jirova, D., Kejlova, K., and Mosinger, J. Study of the photodynamic effect on the A549 cell line by atomic force microscopy and the influence of green tea extract on the production of reactive oxygen species. Ann N Y Acad Sci, 1171: 549-558, 2009.

3. Chuang, C. Y., Chen, T. L., and Chen, R. M. Molecular mechanisms of lipopolysaccharide-caused induction of surfactant protein-A gene expression in human alveolar epithelial A549 cells. Toxicol Lett, 191: 132-139, 2009.

4. Wei, C. W., Lin, C. C., Yu, Y. L., Lin, C. Y., Lin, P. C., Wu, M. T., Chen, C. J., Chang, W., Lin, S. Z., Chen, Y. L., and Harn, H. J. n-Butylidenephthalide induced apoptosis in the A549 human lung adenocarcinoma cell line by coupled down-regulation of AP-2alpha and telomerase activity. Acta Pharmacol Sin, 30: 1297-1306, 2009.

5. Su, J. C., Lin, K. L., Chien, C. M., Lu, C. M., Chen, Y. L., Chang, L. S., and Lin, S. R. Novel indoloquinoline derivative, IQDMA, induces G(2)/M phase arrest and apoptosis in A549 cells through JNK/p38 MAPK signaling activation. Life Sci, 85: 505-516, 2009.

6. Ding, X. L., Zhang, H. Y., Qi, L., Zhao, B. X., Lian, S., Lv, H. S., and Miao, J. Y. Synthesis of novel pyrazole carboxamide derivatives and discovery of modulators for apoptosis or autophagy in A549 lung cancer cells. Bioorg Med Chem Lett, 19: 5325-5328, 2009.

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Lot Specific Information Sheet for AddexBio Cat #: C0016002

Lot Number: 1289532

Designation: A549 CELLS

Total Cells/mL: >$1.8x10^6$

Expected Viability: >95.0%

Ampule Passage #: 6

Dilute Ampule Content: 1:10 (T-25) or 1:15 (T-75)

Volume/Ampule: 1 mL

A T-25 setup at a dilution of 1:10, using culture medium as described in the product information sheet, reaches approximately 80-90% confluence within 24 to 48 hours.

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